

What is claimed is,

1           1. An elevator safety indicator apparatus for use on slip equipped oil field drilling rig elevators  
2 to indicate to the driller when the slips are closed and locked in the closed position, the apparatus  
3 comprising:

- 4           a) a lock enabling means, situated on the elevator, and arranged to move in sympathy with  
5 the slips;  
6           b) lock means situated to immobilize the lock enabling means when the slips are in at least  
7 one preselected position;  
8           c) a wireless signal transmitter on the elevator, responsive to the lock means, to transmit a  
9 signal when the slips are locked in the preselected position; and  
10          d) a receiver located on the drilling rig, remote from the elevator, arranged to receive the  
11 signal and produce a visible indication that the signal has been received.

1           2. The apparatus of claim 1 wherein said lock means is movable toward the position to  
2 immobilize the lock enabling means, and is biased to complete the movement, but denied the  
3 completion of the movement until the slips are in the lockable position.

3. The apparatus of claim 1 wherein said preselected position includes that position that exists  
when the slips are open and that position which exists when the slips are closed.

4. The apparatus of claim 1 wherein said wireless signal is a radio frequency transmission.

5. The apparatus of claim 1 wherein said wireless signal is acoustic.

6. The apparatus of claim 1 wherein said wireless signal is in the infra-red range of the  
electromagnetic spectrum.

1           7. An elevator safety indicator apparatus for use on slip equipped elevators to indicate to the  
2 driller when the slips are closed and locked in the closed position, the apparatus comprising:

3           a) a slip equipped elevator with linkage that moves in sympathy with movement of the slips  
4 between a slips open position and a slips closed position;

5           b) a lock enabling means, situated on the elevator, and attached to said linkage for  
6 sympathetic movement therewith, and arranged such that locking the enabling means locks  
7 the slips in at least one preselected position;

8           c) lock means situated to immobilize the lock enabling means when the slips are in at least  
9 one preselected position;

10          d) a wireless signal transmitter on the elevator, responsive to the lock means, to transmit a  
11 wireless signal when the slips are locked in the preselected position; and

12          e) a receiver located on the drilling rig, remote from the elevator, arranged to receive the  
13 signal and produce a visible indication that the signal has been received.

8. The apparatus of claim 7 wherein said visible is a condition processable by automatic driller controls.

9. The apparatus of claim 7 wherein said wireless signal is a radio frequency electromagnetic transmission.

10. The apparatus of claim 7 wherein said wireless signal is an electromagnetic transmission in the infra-red range of the spectrum.

11. The apparatus of claim 7 wherein said wireless signal is sonic.

12. The apparatus of claim 11 wherein said wireless signal is a sound transmission with a frequency greater than 21,000 Hertz.

1           13. The apparatus of claim 7 wherein said lock means, once moved toward the lock position,  
2 remains biased toward the lock position until the lock enabling means is in the lockable position, the  
3 signal being withheld until the lock enabling means is locked in the slip closed position.

14. The apparatus of claim 7 wherein said wireless signal transmitter is battery operated with  
the battery carried by the elevator.